

KCC 4782 (K.C. No.17,029)  
PATENT

REMARKS

No claims have been amended herein. After entry of this Letter To The Patent And Trademark Office, claims 1, 3-7, 9-20, and 23-25 will be pending.

1. Rejection of Claims 1, 3-4, 7, 9-14, and 17-20 Under 35 U.S.C. §103(a)

Reconsideration is respectfully requested of the rejection of claims 1, 3-4, 7, 9-14, and 17-20 under 35 U.S.C. §103(a) as being unpatentable over Taylor (2,935,437) in view of Shannon (6,488,812). Applicants submit that the invention defined in the claims as presently amended is novel and patentable over Taylor.

Independent claim 1 is directed to a process for making a cellulosic paper product and requires forming an aqueous suspension of papermaking fibers; introducing sodium bicarbonate into the aqueous suspension; depositing the aqueous suspension onto a sheet-forming fabric to form a wet web; and through-drying the wet web by passing heated air through the wet web.

Taylor discloses a process for making a pigment-filled paper of high brightness and opacity while reducing the losses of pigment in the papermaking machine. An aqueous suspension or slurry of papermaking fibers is formed to which is added finely divided hydrated amorphous calcium silicate while maintaining the pH of the slurry of from 4 to 9.2 by addition of an acidic material. Acid salts such as sodium bicarbonate are included among the many disclosed acidic materials. The acidic material is said to react and form a water insoluble salt of the calcium silicate which precipitates and adheres firmly to the papermaking fibers in the slurry to reduce pigment losses in the papermaking machine. After precipitation of the calcium silicate on the cellulosic fiber surfaces, the slurry is sheeted into paper on the wire of a papermaking machine. The web is couched from the wire and subsequently dried, calendered and optionally coated according to conventional procedures (See col. 4, lines 48-59).

As conceded by the Office, Taylor fails to disclose any details of the method used to dry the web, much less teach that

KCC 4782 (K.C. No.17,029)  
PATENT

the web be through-dried by passing heated air through the web as required in claim 1.

Shannon et al. disclose a method of making a paper sheet which includes forming an aqueous suspension of papermaking fibers; depositing the suspension onto a sheet-forming fabric to form a web; and dewatering and drying the web to form a paper sheet. In accordance with the principal teaching of the disclosed method, a synthetic polymer having a portion of its structure derived from the polymerization of acrylamide and containing an aliphatic hydrocarbon moiety is added to the aqueous suspension of papermaking fibers. The synthetic polymer additive is said to reduce lint and slough in the paper sheet. Shannon et al. disclose various ways of drying the web, including using a canvas under tension to hold the partially dewatered web or sheet against a steam heated, convex surface metal dryer maintained at 213°F (101°C) (See col. 11, lines 6-55) as well as by through-air drying using supply air heated to about 390°F (199°C) (See col. 14, lines 32-64). Shannon et al. do not disclose the use of sodium bicarbonate in the papermaking process.

In an attempt to remedy the shortcomings of each reference alone, the Office again combines these references together and states that it would have been obvious, to one skilled in the art at the time the invention was made, to combine the teachings of these references, because such a combination would provide quality drying of the formed paper product in the design of Taylor, since Shannon teaches 99% consistency of the final dried product.<sup>1</sup> As previously noted in Amendment A when the Office

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<sup>1</sup>Applicants note that the Examiner has responded in the most recent Office action to applicants' arguments in Amendment A that there was not proper motivation to combine these references. The Office's response, however, is unsatisfactory as the Office simply restates, exactly, the same reason set forth in the Office actions without any further explanation. Such a response is tantamount to not responding to applicants' arguments, as further explanation and/or clarification was not provided. By making a conclusory statement without explanation, the Office has failed

KCC 4782 (K.C. No.17,029)  
PATENT

combined these two references, applicants respectfully submit that the Examiner's combination of Taylor and Shannon et al. in an attempt to overcome the admitted deficiencies of the primary reference fails to establish a *prima facie* case of obviousness with respect to the claimed invention.

In order to establish a *prima facie* case of obviousness, there must be some suggestion or motivation to combine the reference teachings. A teaching, suggestion or motivation to combine reference teachings is an essential element of an obviousness rejection. The teaching or suggestion to make the combination must be found in the prior art, not in applicants' disclosure. Moreover, it is clear that even if a combination of references teaches each and every element of the claimed invention, in the absence of a motivation to combine found in the prior art, a *prima facie* case of obviousness is lacking. MPEP 2143.01.

Regarding the motivation requirement, the MPEP provides ample guidance regarding the burden of the Office. As noted in MPEP 2142, the burden is on the Examiner to provide some suggestion of the desirability of doing what the inventor has done. To support the conclusion that the claimed invention is directed to obvious subject matter, the references must either (1) expressly or impliedly suggest the claimed invention; or (2) the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references. As recognized by the Office, neither of the references expressly or impliedly suggest the claimed invention of claim 1. As such, the Office states that it would have been obvious to combine the references to provide a quality product. However, when motivation to combine the teachings of the references is not immediately apparent (which is the case with regard to claim 1),

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to meet its required burden under MPEP 2142, 4th Paragraph, of providing applicants with a convincing line of reasoning as to why the skilled artisan would have found claim 1 obvious.

KCC 4782 (K.C. No.17,029)  
PATENT

it is the duty of the Examiner to explain why the combination of the teaching is proper. This explanation is lacking with respect to claim 1. It is not sufficient to say that the references could be combined to show the subject matter of claim 1 without more<sup>2</sup>; there must be some explanation of why it would have been obvious to do so.

Undoubtedly, Taylor discloses the introduction of sodium bicarbonate into a furnish and Shannon et al. disclose air drying. However, there is no reason one skilled in the art would combine these teachings without using applicants' disclosure as a blueprint. If the Office's position that it would have been obvious because a quality product could be produced is acceptable motivation, then any reference showing the through air drying of a paper product would be suitable art for an obviousness rejection, as it could be combined with Taylor to provide a quality product. This is clearly not the case as there is no reason, motivation, or suggestion to do so. Additionally, and significantly, why would one skilled in the art have been motivated to choose, for combination with sodium bicarbonate, the air drying method disclosed in Shannon et al. over the canvas under tension method that is also disclosed as a drying method? There simply is none as there is no motivation or suggestion to do so. Simply because it will provide a quality product is not sufficient under the MPEP guidelines and controlling caselaw.

With all due respect, it appears that the Office has engaged in impermissible hindsight analysis, an analysis that the Federal Circuit has repeatedly cautioned against and ruled improper. Because there is no motivation or suggestion to combine the references cited by the Office, claim 1 is patentable.

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<sup>2</sup>As noted in MPEP 2143.01, the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. There is no suggestion in this case.

KCC 4782 (K.C. No.17,029)  
PATENT

Claims 3-4, 7, and 9-11 depend either directly or indirectly from claim 1 and are patentable for the same reasons as claim 1 as well as for the additional elements they require.

Independent Claim 12 is similar to claim 1 and includes the further requirement of introducing sodium bicarbonate into the aqueous suspension prior to depositing the aqueous suspension onto the sheet-forming fabric as is preferred in the practice of the present invention. Claim 12 is patentable for the same reasons as claim 1 set forth above, as well as for the additional elements it requires.

Claims 13-14 and 17-20 depend either directly or indirectly from claim 12 and are patentable for the same reasons as claim 12 set forth above, as well as for the additional elements they require.

2. Rejection of Claims 5-6, 15-16, and 23-25 Under 35  
U.S.C. §103(a)

Reconsideration is respectfully requested of the rejection of claims 5-6, 15-16, and 23-25 under 35 U.S.C. §103(a) as being unpatentable over Taylor (2,935,437) in view of Shannon et al. (6,488,812), and further in view of Espy (5,674,358).

Taylor and Shannon are discussed above. Espy discloses a process for repulping paper. The paper is repulped utilizing a composition comprising a nonchlorinated oxidizing agent and a buffer, such as sodium bicarbonate. In combining Espy along with Shannon et al. and Taylor, the Office states that such a combination would have been obvious to one skilled in the art as it would improve the wet strength characteristics of the paper product as disclosed by Espy. Before addressing the rejections, applicant point out that claims 5-6 depend from claim 1 which, as described above is patentable. As such, claims 5-6 are patentable as well. Claims 15-16 depend from claim 12 which, as described above, is patentable. As such, claims 15-16 are patentable as well. Claim 23 is similar to claims 1 and 12 and is patentable for the same reasons as claims 1 and 12, as well as

KCC 4782 (K.C. No.17,029)  
PATENT

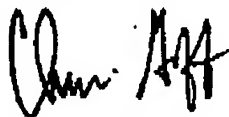
for the additional elements it requires. As such, claims 24-25, which depend from claim 23, are patentable as well.

Notwithstanding the fact that the rejected claims are patentable as discussed above, the combination of these three references by the Office is improper. As set forth above, the combination of Taylor and Shannon et al. is improper. As such, by definition, the additional combination of Espy is also improper. As such, all of the pending claims are in condition for allowance.

Favorable reconsideration and allowance of all pending claims are respectfully solicited.

The Commissioner is requested to charge any fee deficiency in connection with this amendment to Deposit Account 19-1345.

Respectfully submitted,



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